

WHAT IS CLAIMED IS

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1. A liquid crystal display comprising:
a data driving part taking in image
display data in response to a clock signal supplied,
and causing an image display part to display an
10 image according to the image display data; and
a control part detecting a change pattern
of the image display data, and adjusting a phase
relationship between the clock signal and image
display data according to the detected change
15 pattern.

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2. The liquid crystal display as claimed
in claim 1, wherein said control part uses the image
display data for three clock periods of the clock
signal for detecting the change pattern of the image
display data.

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3. The liquid crystal display as claimed
30 in claim 1, wherein said control part delays only
the image display data having a logical levels
changing for each clock period of the clock signal.

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4. The liquid crystal display as claimed

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in claim 1, wherein said control part delays the clock signal.

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5. The liquid crystal display as claimed in claim 1, wherein said control part detects the frequency of the clock signal, and adjusts the phase relationship between the clock signal and image data signal according to the detected frequency as well as the detected change pattern.

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6. A liquid crystal display comprising:
a data driving part having a plurality of tone-level nodes provided for tone-level voltages generated in accordance with supplied reference voltages, and causing a liquid-crystal display part to display an image according to the tone-level voltages; and

a selecting part selecting from the plurality of tone-level nodes to which the reference voltages are supplied according to a given first control signal.

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7. The liquid crystal display as claimed in claim 6, wherein said selecting part is built inside of said data driving part, and the reference voltages are provided from the outside of said data driving part.

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8. The liquid crystal display as claimed in claim 6, wherein said data driving part takes in a data signal transferred thereto as the reference voltage, according to a given second control signal,
5 as the reference voltage.

10 9. A liquid crystal display comprising:
a plurality of data driving parts causing
a liquid-crystal display part to display an image
according to image display data supplied in
synchronization with a clock signal;
15 a control part supplying the image data
signal and clock signal to said plurality of data
driving parts; and
a timing correcting part provided in each
of said plurality of data driving parts, and making
20 the clock signal and image display data supplied by
said control part have predetermined phase
relationship therebetween

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10. The liquid crystal display as claimed in claim 9, wherein:
said control part detects signal
30 transmission time periods required toward the data
driving parts, generates a correction signal
according to the detected data transmission time
periods to be sent to said timing correcting part;
and
35 said timing correcting part makes the
clock signal and image display data have the
predetermined phase relationship therebetween

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according to the supplied correction signal.

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11. The liquid crystal display as claimed in claim 9, wherein:

10 said control part supplies a monitoring data signal common for the timing correcting parts; and

each of the timing correcting parts detects a phase difference between the thus-supplied monitoring data signal and the clock signal, and, thereby, make the clock signal and image display data have the predetermined phase relationship therebetween.

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12. A liquid crystal display comprising:
a data driving part causing a liquid-crystal display part to display an image according to image display data by a given control signal; and
25 a control signal generating part built inside of said data driving part, and generating the control signal according to an external signal provided from the outside of said data driving part.

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13. The liquid crystal display as claimed in claim 12, wherein said external signal comprises
35 a clock signal for determining timing by which the image data signal is taken in by said data driving part, and an effective display signal for

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determining a scope of the image display data to be used for image display performed by said liquid crystal display part.

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14. The liquid crystal display as claimed in claim 12, wherein said control signal comprises a latch signal for storing the image display data into a latch circuit from which the image display data is supplied to said liquid-crystal display part.

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15. The liquid crystal display as claimed in claim 12, wherein said control signal comprises an alternate-current driving signal for performing alternate-current control of a liquid crystal driving voltage to be supplied to the liquid-crystal display part.

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16. The liquid crystal display as claimed in claim 12, wherein said data driving part uses a voltage obtained through level shift of a voltage provided from the outside of said liquid crystal display for driving the liquid-crystal display part, and causes said liquid-crystal display part to display an image according to the image display data.

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17. A liquid crystal display comprising:
a liquid-crystal display part displaying
an image; and
a data driving part taking in image
5 display data sequentially according to an effective
display signal used for determining a scope of the
image display data to be used for image display
operation performed by said liquid-crystal display
part, and causing said liquid-crystal display part
10 to display an image according to the thus-taken-in
image display data.

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